

Curriculum Vitae

Roman S. Boiko

Current Position

Scientific researcher, Lepton Physics Department, Institute for Nuclear Research
Kyiv, Ukraine

Contact Information

Institute for Nuclear Research, Prospekt Nauky 47, MSP 03680 Kyiv, Ukraine

Phone: +380 44 5255283

Mobile: +380 67 6833139

E-mail: boiko@kinr.kiev.ua

Personal Data

Born on December 31, 1978, Chernigiv region, Ukraine.

Education

1996-2001: Kiev National Taras Shevchenko University, Chemical Faculty.

Degree: Diploma in inorganic chemistry

2006: Kiev National Taras Shevchenko University

Dissertation: "Synthesis, structure and properties of double phosphates of alkaline metals, gallium and indium"

Degree: Kandidat nauk (equiv. PhD, Chemistry)

Professional Employment

2001-2002: Ukrainian Army (solder)

2003-2006: Engineer, competitor for scientific degree, Kiev National Taras Shevchenko University.

2007-till now: Associate Professor, National University of Life and

Environmental Sciences of Ukraine

2007-2009: leading engineer, Institute for Nuclear Research, Ukraine

2010-till now: Scientific researcher, Institute for Nuclear Research, Ukraine

Teaching Activity

Lectures and studies in National University of Biosources and Nature Management of Ukraine

Research Activity

Investigation of interactions and crystals' formations in molten salts. Search for new crystalline luminescence materials. Purification and investigation of solid inorganic compounds. Search for methods of purification and obtaining of inorganic crystalline materials.

Main publications

1. Boyko R.S., Boyko V.V., Chukova O.V., Nagorny P.G., Nedyelko I.M., Nedyelko S.G., Radzivanov V.I., Gaididei G.I., Sakun V.P. Luminescent probes for some radioactive waste confinement phosphates. *Functional materials* 11 (2004) 147.
2. Boyko R.S., Chukova O.V., Gomenyuk O.V., Nagorny P.G., Nedilko S.G. Origin of red luminescence of sodium titanium phosphate crystals. *Phys. Stat. Sol* 1 (2005) 712.
3. R. Bojko at al., Electronic structure and optical properties of Ti-doped phosphate crystals. *Mat. Sc. and Eng.: B* 144 (2007) 7
4. R. Boyko at al., Luminescent spectroscopy of sodium titanium orthophosphate crystals doped with samarium and praseodymium ions. *Optical Materials* 30 (2008) 684
5. R. Bojko at al., The electronic structure and optical properties of ABP_2O_7 (A = Na, Li) double phosphates. *Optical Materials* 30 (2008) 687
6. R. Bojko at al., Luminescence properties of $CsAlP_2O_7$ crystals doped with chromium ions under VUV and UV excitation. *Optical Materials* 30 (2008) 693
7. R. Bojko, V. Boyko S. Nedilko, Yu. Hizhnyi, O. Chukova and P. Nagorny. Luminescent monitoring of metal dititanium triphosphates as promising materials for radioactive waste confinement. *J. of Nucl. Mat.* 385 (2009) 479
8. P. Belli at al., Development of enriched $^{106}CdWO_4$ crystal scintillators to search for double β decay processes in ^{106}Cd . *Nuclear Instruments and Methods in Physics Research A*– 615 (2010), p. 301–306
9. P. Belli at al., New observation of $2\ 2$ decay of ^{100}Mo to the $0+1$ level of

- 100Ru in the ARMONIA experiment. Nucl. Phys. A 846(2010)143-156.
10. P. Belli et al., Development of enriched $^{106}\text{CdWO}_4$ crystal scintillators to search for double β decay processes in ^{106}Cd . Nucl. Instrum. Meth. A 615(2010)301-306.
 11. H.J.Kim et al., Neutrino-less double beta decay experiment using $\text{Ca}^{100}\text{MoO}_4$ scintillation crystals. IEEE Trans. Nucl. Sci. 57(2010)1475-1480.
 12. Yu. Hizhnyi, S. Nedilko, V. Chornii, P. Nagorny, R. Boiko, M. Slobodyanik, and K. Terebilenko. Spectroscopic Studies of Polycrystalline $\text{NaAl}(\text{MoO}_4)_2:\text{Cr}^{3+}$ Compound as New Material for Micro- and Nano-Sized Cryogenic Fluorescence Thermometer. SENSOR LETTERS 8 (2010) 1–6
 13. A.S.Barabash, P.Belli, R.Bernabei, R.S.Boiko, F.Cappella, V.Caracciolo, D.M.Chernyak, R.Cerulli, F.A.Danevich, M.L. Di Vacri, A.E.Dossovitskiy, E.N.Galashov, A.Incicchitti, V.V.Kobychev, S.I.Konovalov, G.P.Kovtun, V.M.Kudovbenko, M.Laubenstein, A.L.Mikhlin, S.Nisi, D.V.Poda, R.B.Podviyanuk, O.G.Polischuk, A.P.Shcherban, V.N.Shlegel, D.A.Solopikhin, Yu.G.Stenin, V.I.Tretyak, V.I.Umatov, Ya.V.Vasiliev, V.D.Virich.
Low background detector with enriched $^{116}\text{CdWO}_4$ crystal scintillators to search for double β decay of ^{116}Cd .
JINST 06(2011)P08011, 24 p.
 14. R.S.Boiko, V.D.Virich, F.A.Danevich, T.I.Dovbush, G.P.Kovtun, S.S.Nagorny, S.Nisi, A.I.Samchuk, D.A.Solopikhin, A.P.Shcherban'.
Ultrapurification of archaeological lead.
Inorganic Materials 47(2011)645-648.
 15. P.Belli, R.Bernabei, R.S.Boiko, V.B.Brudanin, F.Cappella, V.Caracciolo, R.Cerulli, D.M.Chernyak, F.A.Danevich, S. d'Angelo, A.E.Dossovitskiy, E.N.Galashov, A.Incicchitti, V.V.Kobychev, S.S.Nagorny, F.Nozzoli, B.N.Kropivnyansky, V.M.Kudovbenko, A.L.Mikhlin, A.S.Nikolaiko, D.V.Poda, R.B.Podviyanuk, O.G.Polischuk, D.Prosperi, V.N.Shlegel, Yu.G.Stenin, J.Suhonen, V.I.Tretyak, Ya.V.Vasiliev.
First results of the experiment to search for 2β decay of ^{106}Cd with the help of $^{106}\text{CdWO}_4$ crystal scintillators.
Nucl. Phys. At. Energy 12(2011)124-128.